

The North Carolina Master Beekeeper Program

(MBP) By BCBC Education Secretary Janet Peterson (2/13)

Here are instructions for how you, as a club member, can get recognition for your beekeeping knowledge accomplishments.

The Buncombe County Beekeepers adhere to the North Carolina Master Beekeeper Program which consists of steps of bee knowledge that require a written test and a practical field test at the local level for step 1 and 2, then graduate-type studies and community service for steps 3 and 4.

1. Certified Beginner
2. Journeyman
3. Master BeeKeeper
4. Master Craftsman

History

- ✿ NC State has had an Apiculture Program since 1913
- ✿ NCSBA, our state organization, in 1974 successfully lobbied NC State legislature to create a full-time apiculture position at NC State
- ✿ Dr. John Ambrose headed this (1975-2000) State Extension Apiculturist and made many visits to our chapter. He created the MBP program that many other states (13 others) model their programs after.
- ✿ Presently Dr. David Tarpy, 2003 to present (Cornell) is Associate Professor and Extension Apiculturist running the Bee Lab of research.
- ✿ 2011, State government cutbacks requires NCSU and the NC Extension Office to also withdraw the \$80,000/year that went to all the travel expenses for Dr. Tarpy and the secretary assigned to recording MBP credits, issuing tests, grading tests and issuing certificates
- ✿ Tarpy starts own **Beekeeper Education & Engagement System (BEES)** an online system for training beekeepers at all levels costing \$25x3 for each (Beginner, Advanced, Ambassador)
- ✿ 2011 NCSBA takes over MBP program. Go to www.ncbeekeepers.org for more information or keep reading:

Just because funds were cut at Extension and NCSU doesn't mean there aren't educational free things to take advantage of. Our own local Extension Agent is Cliff Ruth (94 Coxe Ave. Asheville, 04 828-255-5522) allocates 3% of his time to our beekeepers and houses are educational items for loan to members. You can also view:

- ✿ Webinars <http://www.cals.ncsu.edu/entomology/apiculture/webinars.html>
- ✿ Beekeeping Notes http://www.cals.ncsu.edu/entomology/apiculture/Bee_notes.html

In fact, as a member of BCBC you can take advantage of these things:

- ✿ Club Meetings and Field Days
- ✿ Bee School at a discount
- ✿ Borrow bee suit, child's bee suit, library posters, observation hive located at Extension
- ✿ Borrow Extractor (training and deposit required)

Now what?

If you are ready, notify the Education Secretary of BCBC (Janet Peterson) who will put the Regional Director (Steve Langfeld) on alert that you are starting the process. That is the protocol before you are issued a fabulous certificate of proof of your hard-earned knowledge!

Ready for Beginner Certified Status?

- ✿ Join the NCSBA (\$15), Local (\$10)
- ✿ Participate in a bee school
- ✿ Gain experience with a mentor at the CHBR (Center for Honey Bee Research)
- ✿ **Your Bee School will cover this: Honey bee biology, management and relation to industry.** Honey bees are living, breathing animals. Understand honey bees as a superorganism –a biological system. This includes understanding the architecture of the bee nest in a tree and man made, development from birth to adult, basic anatomy, seasonal behavior and how a beekeeper manipulates a hive in a managed setting, how to properly keep bees and what not to do. Hive construction, beekeeping equipment, and apiary establishment are also important areas of understanding. What diseases afflict honey bees and available treatments. Managed honey bees in the US account for over \$14 billion each year in pollination services. Know what crops require bees for cross pollination for fruit set and how honey is extracted and labeled for sale.
- ✿ Requires a 30 question **written test** of multiple choice given:
 - ✿ At the Spring NC/SC Bee meeting on March 1-2, 2013 in Rock Hill, SC
 - ✿ At Extension Office on 94 Coxe Ave. Asheville April 2 from 2-8 PM email Janet the time you can come (see About Us for email)
 - ✿ At the Summer NCSBA meeting in Pinehurst, July 11-13, 2013
 - ✿ By special arrangement with a Master Beekeeper

Here's an example of a test question: What is bee space?

- ✿ A. 2 centimeters
- ✿ B. about 3 inches, the size of an opening in a tree
- ✿ C. 3/8 inch
- ✿ D. All of the above

Requires a **practical field test** (June 8, Saturday at our 4-H field day)

- ✿ Demonstrate wearing protective gear

- ✿ Describe the parts of the beehive
- ✿ Light and properly use a smoker
- ✿ Recognize the different castes of bees
- ✿ Recognize the various stages of brood
- ✿ Find the queen or describe how to find the queen and what she looks like
- ✿ Differentiate between bee brood, pollen, capped honey, and uncapped honey
- ✿ Identify propolis and describe its function in the hive

Ready for Journeyman Status?

- ✿ 5 Service credit hours. Be a practicing beekeeper for 2+years
- ✿ Practical test taken at Spring or Summer NCSBA meetings
 - ✿ Spring Meeting 2013 March 1,2 RockHill, SC
 - ✿ Summer Meeting 2013 July 11-13, 2013 Pinehurst, NC
- ✿ \$10 to NCSBA
- ✿ Written test of multiple choice, short answer and essay taken at Spring or Summer NCSBA meetings
- ✿ NCSBA is working on allowing local chapters to give test (TBA)

Study this

Honey bee anatomy
 Other stinging insects
 Pheromones
 Bee Botany
 Queens and mating
 Genetics of bees
 Foraging biology
 Honeybees of the world
 Tools of the trade
 Advanced management techniques
 Parasites, pathogens, pests and problems
 Varroa mite IPM
 Queen rearing and bee Breeding
 Honeybee stocks
 Africanized bees
 Colony collapse disorder
 Pesticides
 Honey labeling
 Crop pollination
 Honey and hive products
 History of beekeeping

Here's an example of a test question:

- ✿ What gland does the alarm pheromone come from? _____
- ✿ Name two conditions that will produce a spotty brood pattern:

- ✿ Honey bees use water for what reasons? _____

Complete a Public Service Form (print out from website and send to PO Box 785 Asheville, NC 28804. OR scan and send to Janet by email. It will be reviewed by the Education Secretary, then passed on to the Regional Director for final approval)
Here are some ideas:

- A. Programs on beekeeping and related topics to non-beekeeping groups
- B. Programs on beekeeping and related topics to school groups
- C. Publication of beekeeping and related topic articles in journals, newsletters, etc.
- D. Serving as an officer/director of a county/local beekeeping organization
- E. Construction of an exhibit or working at a beekeeping exhibit open to the public
- G. Assisting 4-H members and other youths with beekeeping projects

- ✿ 1. Name of Event and Place
- ✿ 2. Number of People attending
- ✿ 3. Describe your role
- ✿ 4. Total hours including prep
- ✿ 5. How did this event further knowledge of the honeybee for you and participants

Practical Exam, the beekeeper may select any 5 topics listed below and must pass 4 of them. This is done with an examiner.

1. Score a jar of honey as if you were a honey judge.
2. Read 3 pesticide labels and determine which is safest to use near bees
3. Identify items related to beekeeping
4. Examine a honey label for errors
5. Distinguish between bees, wasps, hornets, from pinned specimens
6. Identify selected anatomical structures of the honey bee
7. Identify several odors related to beekeeping
8. Identify parts of a flower from a diagram or live flower

Ready to Become a Master Beekeeper?

This is the third level of the Master Beekeeper program. The beekeeper must master the journeyman level before taking the master level. A Master beekeeper should be able to function as a sideline or commercial beekeeper. In addition to the general aspects of beekeeping, the individual will also demonstrate knowledge in such areas as bee biology, the business aspects of beekeeping, honey and bee-related judging, bee behavior and other specialty areas.

The beekeeper must:

Pass a written and practical test.

Must have 3 additional years of beekeeping experience at Journeyman level.

Must complete 10 units of public service work in beekeeping.

Master Level Requirements:

Must demonstrate competence in at least six of the following :

1. Liquid (Extracted) Honey: Demonstrate expertise in the production of extracted honey by winning a first or second place in an authorized honey competition. Authorized competitions include state fairs, competitions at state, regional, or national beekeeping meetings, and similar activities.
2. Comb or Cut-comb Honey: Demonstrate expertise in the production of comb or cut-comb honey by winning a first or second place in an authorized honey competition. Authorized competitions include state fairs, competitions at state, regional, or national beekeeping meetings, and similar activities.
3. Crystallized (Spun or Creamed) Honey: Demonstrate expertise in the production of crystallized honey by winning a first or second place in an authorized honey competition. Authorized competitions include state fairs, competitions at state, regional, or national beekeeping meetings, and similar activities.

NOTE: You may include only two subspecialties from item 1-3 on this list when submitting documentation for satisfaction of the Master practical test.

4. Beeswax: Demonstrate expertise in the production of beeswax by winning a first or second place in an authorized beeswax competition. Your beeswax entry may include either processed beeswax or beeswax figures/candles. Authorized competitions include state fairs, competitions at state, regional, or national beekeeping meetings, and similar activities.

5. Published Article in a Beekeeping Publication: Prepare an article on beekeeping or related subject and have it published in a beekeeping publication such as "American Bee Journal", "Bee Culture", "Speedy Bee", "Bee World", or a similar journal. Articles in beekeeping newsletters will not be credited towards this subspecialty.

6. Published Article in a non-beekeeping publication: Prepare an article on beekeeping or a related subject and have it published in a non-beekeeping publication. Acceptable publication sources are those with at least a state-wide distribution, but you may submit publications with a limited distribution for consideration by the Review and Equivalency Board.

7. Recognition as a Local Beekeeping Authority: Be recognized as a beekeeping authority in your local area by appearing on a radio or television broadcast. Consideration will also be given to your name appearing in a newspaper article if you are quoted or referenced as a major contributor to the article.

8. Certification to administer life saving treatment for allergic reactions to insect stings: Submit documentation that you have undergone training for life saving treatment of persons suffering from allergic reactions to insect stings, and that you have been certified to administer such treatments. Suitable documentation would include such things as a certificate from your state Department of Health, that you may administer epinephrine to persons suffering from allergic reactions.

9. Attendance at Major Beekeeping Meetings/Conventions: Attend at least three regional (multi-state), national, or international beekeeping meetings or conventions. The minimum total of three meetings may not include more than two meetings of the same organization.

10. Conducting a program at a state-wide or major beekeeping meeting: Conduct/present a program, workshop, or similar activity at a state, regional, national, or international beekeeping meeting or convention.

11. Basic Queen Rearing: Be certified by a commercial queen breeder that you are competent in the basic skills of small scale queen rearing, which should include the ability to graft larvae into queen cups.

12. Advanced Queen Rearing: Successfully complete a course on the uses of artificial insemination in queen rearing.

13. Pesticide Usage Expertise: Present proof that you have been certified by an appropriate authority, such as a state Department of Agriculture or the Agriculture Extension Service, that you are qualified to use restricted use pesticides.

14. Establishment of a beekeeping enterprise: Submit documentation that you have successfully established a beekeeping enterprise which is legally licensed to do business in your locality. Beekeeping enterprises may include wholesale or retail sales of bee products, sales of bees or queen bees, rental of bees for pollination services or similar activities. Any business enterprise submitted for approval must meet local/state licensing requirements and also be reflected on your tax returns.

15. Collaborate in a university research or extension project: Participate in a beekeeping research or extension project at an approved institution. The participation must reflect a significant commitment of time/effort by the individual and does not include such things as merely responding to requests for information by completing a questionnaire.

16. Completion of a training session in some specialized area of beekeeping: Satisfactorily complete an approved training session relating to some special skill or technical expertise in beekeeping. Such training sessions must be in some depth, and will not normally include such things as the general workshops conducted at state or national beekeeping conventions.

17. Serve as an officer of a major beekeeping organization: Serve for two or more years as an officer of a regional, national, or international beekeeping organization. The two years service need not be consecutive, or in the same organization.

18. Expertise in a subspecialty not listed: If you have expertise in an area not specifically listed, such as pollination, beekeeping equipment construction, knowledge of bee related plants ((floral sources), then you may submit documentation of that skill as a portion of your requirements for this practical test. This is the only subspecialty number where you may have multiple submissions.

Units of Public Service Credits

The following is a list of types of public service credits that may be credited towards the requirements of the Master Level of the Master Beekeeper program.

- A. Programs on beekeeping and related topics to non-beekeeping groups
- B. Programs on beekeeping and related topics to school groups
- C. Presentations of Clemson or Clemson approved programs to beekeeping groups

- D. Publication of beekeeping and related topic articles in journals, newsletters, etc.
- E. Serving as an officer/director of a county/local beekeeping organization
- F. Construction of an exhibit or working at a beekeeping exhibit open to the public
- G. Assisting 4-H members and other youths with beekeeping projects
- H. Serving as an officer/director/regional representative of a state beekeeping organization.
- I. Programs/lectures/demonstrations on specific beekeeping topics to beekeeping groups.
- J. Judging honey and/or beekeeping products at fairs or other competitions
- K. Conducting general courses for advanced beekeepers (not beginning beekeepers)
- L. One-to-one instruction to beginning beekeepers.

- After the completion of at least six areas of mastery, the MBP Committee would grade the essays and orally question the candidate about the mastery level subjects.
Certificate, Medallion and personal name plate with lots of kudos are issued!

These are the Master Beekeepers in our BCBC: Edd Buchanan, Greg Rogers, Diane Almond, Debra Roberts, Calvin Robinson

The highest level: Master Craftsman

This is the fourth and highest level of the Master Beekeeper program. At this level, the beekeeper should have general knowledge of all relevant areas of beekeeping as well as being a specialist on several selected topics. The apicultural qualifications, at this level, are comparable to those found in a graduate level program in apiculture at a major U.S. university. Only a few individuals are expected to reach this level.

The title of **Master Craftsman Beekeeper** will be awarded for a 5 year period as an “active” title. After that five year period, the individual will have 2 options: (1) become an “emeritus” Master Craftsman Beekeeper, or (2) renew the active Master Craftsman Beekeeper status for an additional 5 years by completing an additional 15 units of public service and demonstrate competence in any new requirements that may be added to the program.

The beekeeper must:

Pass an oral test (comparable to the oral exam for a student in a Master of Science program at a university)

Demonstrate practical experience in a minimum of 7 required areas (practical test)

Must have at least 2 years experience at the Master Beekeeper level

Must complete 15 units of public service work in beekeeping

Present a program at a North Carolina State Beekeepers Association annual conference

Demonstrate communication skills

Participate in a university sponsored research project

Details of Requirements

ORAL TEST: The candidate will be tested by a group of three individuals, including the Extension Apiculturist. The candidate will be tested on one specific area of his/her choice (i.e. bee diseases, Africanized honey bees, etc.) as well as on general knowledge of those areas relating to honey bees and beekeeping.

PUBLIC SERVICE: The candidate will be expected to complete a minimum of 15 units of public service work in beekeeping. These public service units must be earned after becoming a Master Beekeeper.

YEARS OF EXPERIENCE: The candidate must have at least 2 years experience as a Master Beekeeper.

COMMUNICATION SKILLS:

1. The candidate must present a program at one of the annual state beekeeper conferences. This program may be in the form of a general presentation, a workshop, or similar activity.

2. The candidate must complete two of the following activities:

A. Prepare and have published an article in one of the beekeeping journals.

B. Prepare and have published an article on bees and/or beekeeping in a non-beekeeping publication.

C. Be interviewed on a radio or TV program regarding honey bees and/or beekeeping.

D. Be interviewed for a newspaper article regarding honey bees and/or beekeeping.

PRACTICAL TEST:

The candidate must complete a minimum of seven of the following specialty areas. All candidates must complete items 1-4 , and at least 3 additional items from 5-10 of the list below.

1. Ability to diagnose and treat various bee diseases.

2. Ability to diagnose and treat various bee pests, especially tracheal and varroa mites.

3. Be trained in the emergency treatment of allergic reactions to insect stings.

4. Competency in organizing and conducting a training program for beekeepers.

5. Competency in queen rearing

6. Competency in the use of honey bees for crop pollination.

7. Competency in producing and packaging honey for sale to the public.

8. Competency in removing bees from a structure.

9. A general knowledge of Africanized honey bees and their impact on the US.

10. Competency in another area as approved by the Review and Equivalency board of the Master Beekeeper program.

University sponsored research project:

Be an active participant in a NCSU or other approved university sponsored project involving honey bees and/or beekeeping.

Good Luck and Happy Beekeeping!